

1,3,2(1,4,2)-Dioxaphosphepins annelated with naphthalene fragment: Synthesis and steric structure

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Abstract

Reaction of hexafluoroacetone and chloral with 2-R-naphtho-1,3,2- dioxaphosphorin-4-ones yields 2-R-2,5-dioxo-4,4-bis(trifluoromethyl)naphthol-1, 3,2-and 2-R-2,5-dio-o-3-trichloromethylnaphtho-1,4,2λ5- dioxaphosphepins. Hydrolysis of the fluorophosphepins gives naphthyl-substituted fluorinated hydroxy ketones. The steric structure of the dioxaphosphepins and some fluorinated ketones was confirmed by single crystal X-ray diffraction. A competition between the π - π and halogen-halogen interactions and hydrogen bonds of classic type in the formation of crystal packing and supramolecular structure was revealed. © Nauka/Interperiodica 2007.

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